

**REMARKS**

Claims 20, 22, 26, 27, 32, 33 and 35-38 are pending in this application. By this Amendment, claims 20, 32, 35 and 36 are amended; claims 23, 25 and 34 are canceled without prejudice or disclaimer; and claims 37 and 38 are added. Support for the amendments to claims 20 and 32 can be found in at least original claims 25 and 34, and page 13, lines 23-25 of the originally-filed specification. Support for new claims 37 and 38 can be found in at least page 13, lines 15-18 of the originally-filed specification. No new matter is added.

The Office Action objects to claims 35 and 36 for reciting substantially the same subject matter as claims 26 and 27, and rejects claims 20, 22, 23, 25-27, 35 and 36 under 35 U.S.C. §112, second paragraph. By this Amendment, claims 20, 35 and 36 are amended to obviate the objection and rejection. Applicant respectfully requests withdrawal of the objection and rejection.

The Office Action rejects claims 20, 22, 25-27 and 32-36 under 35 U.S.C. §102(e) or §103(a) over Yoshida et al. (WO 2004/049488). The rejection is respectfully traversed.

Yoshida fails to disclose and would not have rendered obvious the combinations of features of independent claims 20 and 32. For example, Yoshida fails to disclose and would not have rendered obvious:

- "wherein the determining means determines again, when it has been determined that there is a possibility that the chemical short is occurring, whether there is a possibility that the chemical short is occurring, and the scavenging means supplies the scavenging gas to the cathode side when it has been determined again that there is a possibility that the chemical short is occurring, and the determining means sets the third reference value smaller than a predetermined value when it has been determined again that there is a possibility that the chemical short is occurring," as recited in independent claim 20; and
- "wherein, when it has been determined that there was the possibility that the chemical short was occurring, it is again determined whether there is a possibility that the chemical short is occurring, and the scavenging gas is again supplied to the cathode side when it has been determined again that there is a possibility that the chemical

short is occurring, and the determining whether there is a possibility that a chemical short is occurring sets the third reference value smaller than a predetermined value when it has been determined again that there is a possibility that the chemical short is occurring," as recited in independent claim 32.

The Office Action asserts that "it is inherent that the control unit '100' [of Yoshida] is capable of determining again when it has been determined that there is a possibility that the chemical short is occurring, whether there is a possibility that the chemical short is occurring, and the compressor (scavenging means) supplies air (scavenging gas) to the cathode side when it has been determined again that there is a possibility that the chemical short is occurring" (see page 6 of the Office Action with reference to claims 25 and 34, whose features are now incorporated into claims 20 and 32, respectively). Although implicitly acknowledging that Yoshida fails to disclose the functions of claims 20 and 32, the Office Action instead asserts that the control unit 100 of Yoshida includes a structure capable of performing the functions of claims 20 and 32. The Office Action applies an improper standard to reject the claims.

Regarding independent claim 20, the determining means is a structural feature that should be afforded structural patentable weight. The Federal Circuit has routinely held that if a machine is programmed in a certain new and nonobvious way, it is physically different than a machine without that program; e.g., its memory elements are differently arranged. The fact that these physical changes are invisible to the eye should not yield the conclusion that the machine has not been structurally changed (see e.g., *In re Alappat*, 33 F.3d 1526 (Fed. Cir. 1994)). The determining means of independent claim 20 is programmed to perform a function not disclosed by Yoshida, and thus defines over the control unit 100 of Yoshida, which is not programmed or otherwise structured to perform the claimed functions.

Regarding independent claim 32, the allegedly inherent capabilities of the control unit 100 of Yoshida are irrelevant. Claim 32 is a method claim, defined by the process steps

recited therein. Unless Yoshida explicitly or inherently discloses the claimed process steps, claim 32 defines over Yoshida. As implicitly acknowledged by the Office Action, Yoshida fails to disclose these features.

Furthermore, Yoshida does not disclose or render obvious setting the third reference value smaller than a predetermined value when it has been determined again that there is a possibility that the chemical short is occurring, as recited in claims 20 and 32.

For at least these reasons, independent claims 20 and 32 are patentable over Yoshida. Claims 22, 26, 27, 33, 35 and 36 variously depend from independent claims 20 and 32, and are patentable for at least their dependency on independent claims 20 and 32, as well as for the additional features they recite. Applicant respectfully requests withdrawal of the rejection.

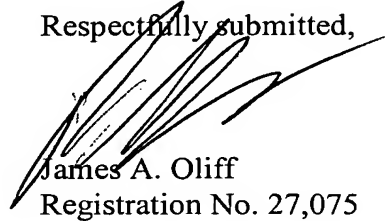
The Office Action rejects claim 23 under 35 U.S.C. §103(a) over Yoshida in view of Boehm et al. (U.S. Patent No. 6,461,751). The rejection is moot in view of the cancellation of claim 23.

Claims 37 and 38 also are patentable at least due to their dependency from claims 20 and 32.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Request for Continued Examination  
Petition for Extension of Time

Date: June 30, 2010

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